

| L Number | Hits | Search Text | DB | Time stamp |
|----------|------|---|---|------------------|
| 1 | 109 | heat\$5 near9 air near9 rotat\$9 same (granul\$8 pellet\$9) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:25 |
| 2 | 70 | (heat\$5 hot) near9 (stream gas\$4 air) same rotating same (granulating pelletizing) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:27 |
| 3 | 17 | (size near6 powder) same rotating same (granulating pelletizing) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:30 |
| 4 | 159 | (size micron) near6 (dust powder) same rotat\$5 same (granulat\$5 pelletiz\$8) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:33 |
| 5 | 159 | (size micron) near6 (dust powder) same rotat\$5 same (granulat\$5 pelletiz\$8) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:34 |
| 6 | 30 | ((size micron) near6 (dust powder) same rotat\$5 same (granulat\$5 pelletiz\$8)) same (agglomerat\$6 compact\$5) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:35 |
| - | 235 | rotat\$8 near9 speed and (iron near3 oxide) and (pellet\$9 granul\$9) and ((polyvinyl near3 alcohol) PVA) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 16:10 |
| - | 0 | rotat\$8 near9 speed same (pellet\$9 granul\$9) and (iron near3 oxide) same ((polyvinyl near3 alcohol) PVA) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 14:19 |
| - | 24 | rotat\$8 near9 speed same (pellet\$9 granul\$9) and (iron near3 oxide) and ((polyvinyl near3 alcohol) PVA) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 14:32 |
| - | 485 | rotat\$8 near9 speed same (pellet\$9 granul\$9) near9 size | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 14:36 |
| - | 14 | (rotat\$8 near9 speed same (pellet\$9 granul\$9) near9 size) same binder same water | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 14:36 |

| L Number | Hits | Search Text | DB | Time stamp |
|----------|------|---|---|------------------|
| 1 | 332 | compact\$8 near9 (powder dust) near9 rotat\$8 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:29 |
| 2 | 883 | (compact\$8 agglomerat\$6 granulat\$8) near9 (powder dust) near9 rotat\$8 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:31 |
| 3 | 639 | ((compact\$8 agglomerat\$6 granulat\$8) near9 (powder dust) near9 rotat\$8) not binder | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:31 |
| 4 | 288 | (compact\$8 near9 (powder dust) near9 rotat\$8) not binder | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:31 |
| 5 | 163 | ((compact\$8 agglomerat\$6 granulat\$8) near9 (powder dust) near9 rotat\$8) near9 (pan disk disc plate) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:32 |

| L Number | Hits | Search Text | DB | Time stamp |
|----------|------|---|---|------------------|
| 1 | 868 | eirich | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:46 |
| 2 | 445 | eirich and rotat\$6 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:47 |
| 3 | 112 | eirich same rotat\$6 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:47 |
| 4 | 8 | (eirich same rotat\$6) same binder same water | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:47 |
| 5 | 10 | (eirich same rotat\$6) same spray\$5 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/12/23 17:48 |

DERWENT-ACC-
NO: 1980-29641C

DERWENT-
WEEK: 198017

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TITLE: Granulating pigment powder in fluidised bed - by treating with granulation aid,
e.g. alkyd resin (NL 9.4.80)

INVENTOR: HOSSACK, J; LAWRENCE, S G

PATENT-ASSIGNEE: HOSSACK, J LAWRENCE, S G CIBA GEIGY AG[CIBA]

PRIORITY-DATA: 1978GB-0039682 (October 6, 1978)

PATENT-FAMILY:

| PUB-NO | PUB-DATE | LANGUAGE | PAGES | MAIN-IPC |
|---------------|-----------------|----------|-------|---------------------------------|
| DE 2940156 A | April 17, 1980 | N/A | 000 | N/A N/A N/A N/A N/A N/A N/A N/A |
| CA 1154635 A | October 4, 1983 | N/A | 000 | A N/A N/A N/A |
| CH 643875 A | June 29, 1984 | N/A | 000 | |
| DK 7904199 A | May 5, 1980 | N/A | 000 | |
| FR 2438073 A | June 6, 1980 | N/A | 000 | |
| GB 2036057 A | June 25, 1980 | N/A | 000 | |
| GB 2036057 B | April 13, 1983 | N/A | 000 | |
| IT 1125449 B | May 14, 1986 | N/A | 000 | |
| JP 55054355 A | April 21, 1980 | N/A | 000 | |
| NL 7907417 A | April 9, 1980 | N/A | 000 | |
| US 4277288 A | July 7, 1981 | N/A | 000 | |

INT-CL (IPC): B01J002/16, B01J002/28 , B01J013/02 , C08K009/00 , C09B067/00 , C09C003/00

ABSTRACTED-PUB-NO: DE 2940156A

BASIC-ABSTRACT:

Prod. of dry, low-dusting, free-flowing pigment granules comprises (a) treating the pigment powder in a fluidised bed with a granulating auxiliary; (b) opt. treating the granular prod. with a surfactant, then (c) removing granules from the bed.

Pref. the powder is dry-milled or sieved conventionally before use. The pigment may be organic (azo, azomethine, (or their metal salts or complexes), opt. halogenated metal phthalocyanines, polycyclics such as quinacridones, dioxazines, vat dyes, anthraquinones or isoindolines, or salts of basic pigments with heteropolyacids of P, W, Mo or Cu ferrocyanide) or inorganic (TiO₂, red or yellow Fe oxides, Prussian blue, Pb or Mo chromate, cadmium red or C black). Typical granulating auxiliaries are alkyd resins, opt. modified with synthetic fatty acids, or polyamide waxes.

Granules are easily dispersed in organic media.

DERWENT-CLASS: A97 E24 G01

CPI-CODES: A12-W11; A12-W12C; E11-R; E25; E31-N02; E35; G01-B;

DOCUMENT-IDENTIFIER: US 20010021389 A1

TITLE: Calcium phosphate microcarriers and microspheres

Detail Description Paragraph - DETX (52):

[0069] More specifically, a microbead of polyethylene wax or other wax or organic material is formed by spraying from a melt and re-solidifying at a lower temperature. Size of the microbeads is determined by the size of the spraying orifice and the pressure under which the organic material or wax is sprayed. Wax or other organic microbeads also can be produced, for example, by compaction of wax powders by rolling in heated ball mills or pan pelletizers or by rolling the powders and gradually adding a solvent to the powders to consolidate them in the form of beads. The size of the beads is controlled by the particle size of the starting powder, heat of the ball mill or pan pelletizer, speed of rotation of the ball mill or pan pelletizer, size of the ball mill or pan pelletizer, length of rolling time, and amount and speed of addition of an organic solvent system. The desired size of bead is obtained by screening. This screening process also removes the unconsolidated powders from the powder consolidation method.

Detail Description Paragraph - DETX (55):

[0072] In the case of preparation by compaction of ceramic powders onto wax/organic beads, wax/organic beads are prepared as previously described in this example. A fine ceramic powder distribution is obtained by numerous methods well known in the art. An example of such a method is dry ball milling and subsequent wet ball milling. The wet milled powder is subsequently dried and further ball milled or air jet milled to break up agglomerates. The resulting powder and wax/organic microbeads of the desired size are placed in a ball mill, pan pelletizer or other container and rolled or vibrated to compact the powders onto the wax/organic microbead. The use of a dense micro-media may also be added to a ball mill or other container to further compact the powders onto the wax/organic microbeads. Furthermore, the resulting shell thickness and density of the ceramic coating is controlled by the energy imparted to the fabricated bead. The amount of energy is controlled by the amount of time of compaction, and speed of rotation or vibration, and/or addition of liquid to promote the agglomeration of powders onto the wax/organic microbeads. Excess or unconsolidated powders are removed from the coated microbeads by sieving through screens of sufficient size to retain the coated microbeads and allow excess powders and compacting media to pass through. The wax/organic is removed as previously described and the ceramic microspheres are classified to size by methods previously described in this example, and sintered to the desired density. The above-mentioned methods are applicable to the formation of CaP-coated wax/organic microbeads.